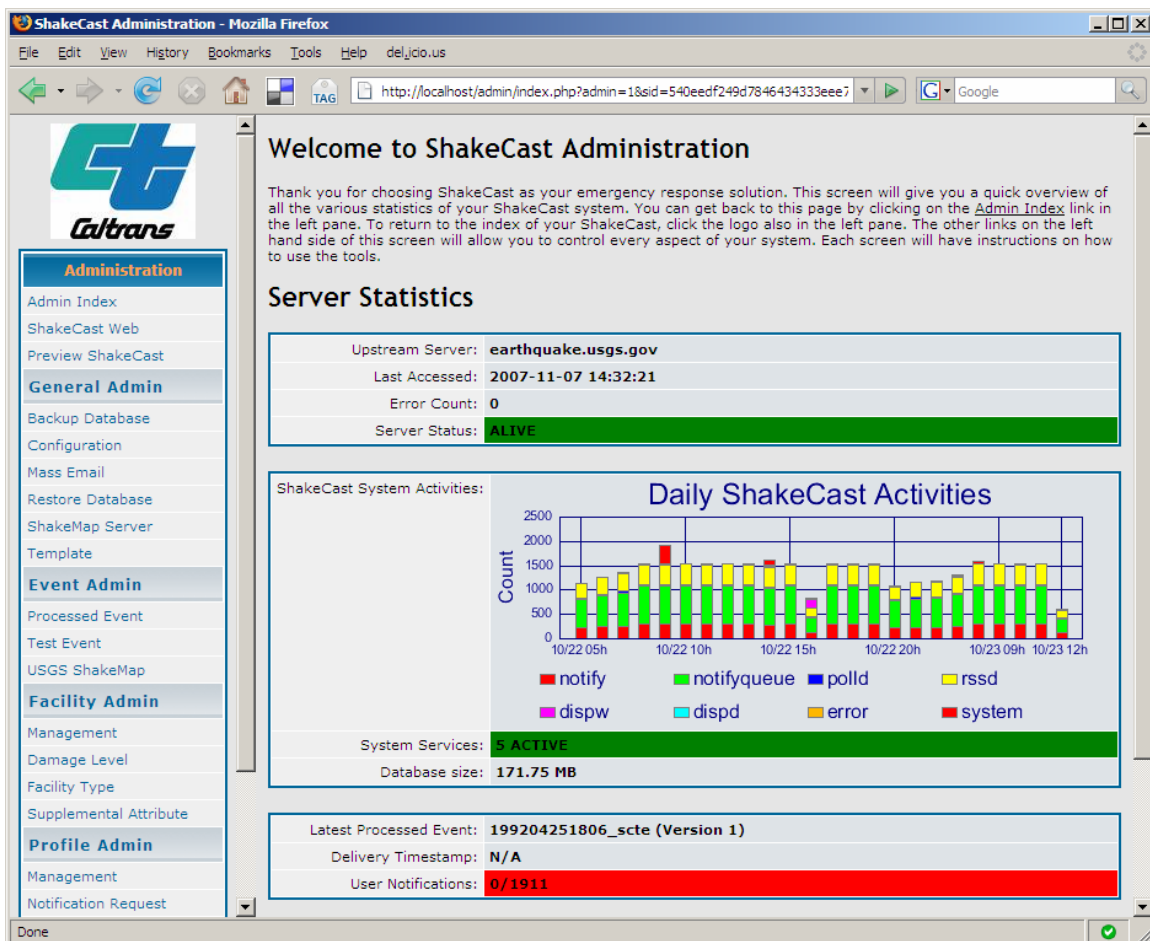# ShakeCast Administrator Web Interface

This document describes the Administrator Web Interface of ShakeCast. The ShakeCast interface is designed for an administrator to perform common tasks ranging from management of both facility and user inventory to system wide maintenance and configuration. The administrative page is restricted access to only ShakeCast users with administrative privileges. The range of tasks that can be performed from the interface includes: 1) Earthquake/ShakeMap management; 2) System configuration; 3) Facility management; 4) Notification/Profile management; and 5) User account and notification management.

The administrative page view displays a list of system management tasks in the left panel and the right panel the work area of the selected task. Figure 1 shows the default page view when first accesses the page. The right panel shows the current status of the ShakeCast system includes: 1) Network connection with the upstream USGS server for ShakeMap RSS data feed; 2) System services and summary of process logs; 3) Latest processed ShakeMap and notifications; and 4) Code version of the current system and available script updates. For each of the first three server system functions, there is a color indicator in either green or red that reflects the status of the function.

The ShakeCast administrator web interface does not cover management for system level services and supporting software. There are currently five ShakeCast daemon services (dispatch, polling, RSS, notify queue, notify processes) and their configuration files that require direct access to the operating system. In addition to the ShakeCast system services, the same restriction also applies to supporting software including the Apache web server and MySQL database applications. An administrator will need to log on to the server system where the ShakeCast system resides to make changes to the configuration files of applications and to start and stop ShakeCast system processes and supporting software.

General Administration
The general administration section allows a ShakeCast administrator to manage system wide tasks in six different categories: 1) Backup Database; 2) Configuration; 3) Mass Email; 4) Restore Database; 5) ShakeMap Server; and 6) Template.

- Backup database: perform backup of the ShakeCast database consisting 70 tables. The backup options can be a combination of table structure and data. The output format is a single file in either plain text or compressed format. The backup copy can be used to restore the system database using the 'Restore Database' function described later.

- General Configuration: display a list of configurable options of the system. These options include configurations of system identity and user page, session management, and external SMTP server.
  - System Identity. The hostname and port fields describe the URL which a ShakeCast user will use to access the system. Each hostname requires a unique API key from the Google Maps server. User-related settings include account activation, access control, and web page style.

General Configuration

The form below will allow you to customize all the general options of the ShakeCast system. Use the related links on the left hand panel for configurations of specific inventory groups.

General System Settings	
Domain Name	localhost
Server Port — The port your server is running on, usually 80. Only change if different	80
Script path — The path where ShakeCast web script is located relative to the domain name	/
Site name	ShakeCast 2.0
Google Maps API Key — Unique Google Maps API key is required for each ShakeCast server. API key sign-up	ABQIAAAAFr1SZqAxLssG5U
Enable account activation	○ None ○ User ⊙ Admin
Enable Visual Confirmation — Requires users enter a code defined by an image when registering.	⊙ Yes ○ No
Allow automatic logins — Determines whether users are allowed to select to be automatically logged in when visiting the server	⊙ Yes ○ No
Automatic login key expiry — How long a autologin key is valid for in days if the user does not visit the server. Set to zero to disable expiry.	0
Allowed login attempts — The number of allowed login attempts.	5
Login lock time — Time in minutes the user have to wait until he is allowed to login again after exceeding the number of allowed login attempts.	30
Number of Displayed Items Per Page	50
Default Style	Caltrans
Date Format — The syntax used is identical to the PHP date() function.	D M d, Y g:i a
System Timezone	GMT
Enable GZip Compression	○ Yes ⊙ No

- o Cookie settings. ShakeCast system implements session control via a cookie stored on the user's web browser during log-in. The administrator can use this setting to configure the time period for each successful log-in.

Cookie settings	
These details define how cookies are sent to your users' browsers. In most cases the default values for the cookie settings should be sufficient, but if you need to change them do so with care -- incorrect settings can prevent users from logging in	
Cookie domain	
Cookie name	sc2mysql
Cookie path	/
Cookie secure — If your server is running via SSL, set this to enabled, else leave as disabled	⊙ Disabled ○ Enabled
Session length [seconds]	3600

- o Email Settings. This form contains information of the Email server which the ShakeCast system or administrator use to send email to the end users. This configuration does not alter the settings of SMTP server information in 'sc.conf' which the ShakeCast system uses to send email notifications. A utility script 'sync_conf.pl' is included for synchronization of configuration settings.

- Mass Email: display a form for the administrator to compose an email message for delivery to the registered users.

- Restore Database: display a dialog for the administrator to upload a backup file of database. The database backup file can be generated from the ShakeCast backup function or from common database dumping utilities. This process will overwrite any existing data in the current system.

- ShakeMap Server: display a list of trusted servers in which ShakeMap products reside. This list also includes the ShakeCast system itself. The ShakeCast system comes pre-configured with three default servers that should not be removed: 1)

Server ID 1 contains the hostname that is allowed for injecting ShakeMap products into the current ShakeCast system. The default setting is 'localhost.' Any changes to this server should also be applied to the 'sc.conf' file. 2) Server ID 1000 is the ID of the current ShakeCast system. The default setting is 'localhost' and should be changed to the hostname of the system the ShakeCast is installed. 3) Server ID 1302 is the upstream USGS web server that hosts ShakeMap products for real time notifications. The new ShakeCast system also supports the server-client configuration of the original ShakeCast system. The administrator can consult documentation of version 1 for details. Available functions for each server are: Edit, Delete, and Password.

ShakeCast Server Administration

From this control panel you can add, edit, and remove servers.

ID	DNS Address	Organization	Last Heard From	Status	Error Count	Upstream	Downstream	Poll	Query	Self	Action
1	localhost		2007-11-07 02:17:02	ALIVE	0	1					Edit Delete Password
1000	localhost		2006-12-08 16:21:58	ALIVE	0					1	Edit Delete Password
1302	earthquake.usgs.gov		2007-11-07 16:53:26	ALIVE	0	1	0	0	1	0	Edit Delete Password

Add new server

- o Edit. The server form contains sever related information including identification and permitted functions.

Server Settings

ID*	1
DNS Address*	localhost
Organization	
Upstream	☑ Yes
Downstream	☐ Yes
Poll	☐ Yes
Query	☐ Yes

Submit

- o Delete. Remove information of the sever entry from the database.
- o Password. Configure password for accessing the designated server. Both Server ID 1000 (local system) and 1302 (USGS web server) do not require password for access. The system is pre-configured password for incoming password for Server ID 1 (injection system). Any changes to the incoming password for a server will update the password file 'sc-servers' for authentication by the Apache web server.

Server Password Settings	
Server	localhost (ID: 1)
Password	
Re-type Password	

Update Outgoing Password　**Update Incoming Password**

- Template: display a list of configurable notification templates that are available for the system. The templates are categorized in six different notification types and each notification type consists of five different delivery methods, a total of 30 template variations. The six notification types are "Cancel Event", "New Event", "Updated Event", "New Product", "Facility Shaken", and "Facility Damage." The five different delivery methods are "Pager", "HTML Email", "Text Email", "Voice", and "Script." In addition to the default template, the administrator can create custom templates for any the template variant. Each defined template is divided into three sections, the header, body, and footer and files reside in the "templates" directory. This configuration does not apply to the ShakeCast web pages. The available functions for each defined template are: View, Edit, and Delete.

ShakeCast Template Administration

From this control panel you can add, edit, and remove templates.

Notification Type	Message Type	File Name	Description	Action		
Cancel Event	Text Email	default		View	Edit	Delete
New Event	Pager	default		View	Edit	Delete
New Event	Text Email	default		View	Edit	Delete
New Event	HTML Email	default		View	Edit	Delete
New Event	Script	default		View	Edit	Delete
Updated event	Pager	default		View	Edit	Delete
Updated event	Text Email	default		View	Edit	Delete
Updated event	HTML Email	default		View	Edit	Delete
Facility Shaken	Text Email	default		View	Edit	Delete
Facility Shaken	HTML Email	default		View	Edit	Delete
Facility Shaken	Script	default		View	Edit	Delete
New Product	Text Email	default		View	Edit	Delete
New Product	HTML Email	default		View	Edit	Delete
Facility Damage	Pager	default		View	Edit	Delete
Facility Damage	Text Email	default		View	Edit	Delete
Facility Damage	HTML Email	default		View	Edit	Delete
Facility Damage	Script	default		View	Edit	Delete

Add new template

- View. The function shows the content of the selected template when combining all three sections of the template.

'SHAKING-EMAIL_HTML-default' Template

```
; Default HTML Email Notification -- header
;
From: ShakeCast <%HEADER_FROM%>
To: %HEADER_TO%
Subject: Testing Windows ShakeCast : %EVENT_ID% (%_ITEMNO%)
Content-Type: text/html
```

ShakeCast Event: Magnitude %MAGNITUDE%

ShakeMap %EVENT_NAME:|NULL|;(Unnamed Event) %Version %SHAKEMAP_VERSION%

Event Location: %EVENT_LOCATION_DESCRIPTION%

Event Time: %EVENT_TIMESTAMP%

Generated at %GENERATION_TIMESTAMP%

Reported by: Server ID = %SERVER_ID%, DNS = %DNS_ADDRESS%

Shaking Summary

Template Code   Number of Facilities Reported: %_ITEMNO%

Max Value: MMI: %_MAX_METRIC_MMI%;
Acceleration: %_MAX_METRIC_PGA:|NULL|;(not measured)%

Number of Reports of Shaking over Threshold: %_ITEMNO%

Facility Shaking Estimates from ShakeMap

```
;;;;;
```

Facility	Metric	Value
%FACILITY_NAME%	%METRIC%	%GRID_VALUE%

[END]

Edit

- o Edit. The editable form allows the ShakeCast administrator to create/edit both existing and new templates. A template variant only allows for one 'default' template. Custom templates can be created by giving the template a new template name and filename other than "default."
- o Delete. Remove information of the template entry from the database and the local file system.

'SHAKING-EMAIL_HTML-default' Template

Name*	default
File Name*	default
Description	

Header Section:
```
; Default HTML Email Notification -- header
;
From: ShakeCast <%HEADER_FROM%>
To: %HEADER_TO%
Subject: Testing Windows ShakeCast : %EVENT_ID% (%_ITEMNO%)
Content-Type: text/html

<font size=+2><b>ShakeCast Event: Magnitude
%MAGNITUDE%</b></font><br>
ShakeMap %EVENT_NAME:|NULL|;(Unnamed Event) %Version
%SHAKEMAP_VERSION%<br>
Event Location: %EVENT_LOCATION_DESCRIPTION%<br>
Event Time: %EVENT_TIMESTAMP%<br>
Generated at %GENERATION_TIMESTAMP%<br>
Reported by: Server ID = %SERVER_ID%, DNS = %DNS_ADDRESS%
```

Body Section:
```
<tr>
<td>%FACILITY_NAME%
<td>%METRIC%
<td>%GRID_VALUE%
</tr>
```

Footer Section:
```
</table>
[END]
```

Submit

Event Administration

The event administration section allows a ShakeCast administrator to manage ShakeMap events in three different categories: 1) Processed ShakeMap events; 2) ShakeCast test events; and 3) Additional ShakeMap inventory on the USGS web site.

ShakeCast Processed Event List

From this control panel you can add, edit, and remove test events.

Event ID	Timestamp	Mangitude	Latitude	Longitude	Location Description	Action		
2007285_222046 - 1	2007-10-12 02:38:43	3.14	38.6006	-118.4494	10.9 miles ENE of HAWTHORNE-NV	Re-Alert	Comment	Delete
2007282_221806 - 1	2007-10-09 13:12:01	3.48	38.4716	-118.5044	7.5 miles ESE of HAWTHORNE-NV	Re-Alert	Comment	Delete
2007282_221782 - 1	2007-10-09 13:12:01	3.18	38.4601	-118.5	8.2 miles ESE of HAWTHORNE-NV	Re-Alert	Comment	Delete
2007282_221841 - 1	2007-10-09 12:32:12	2.9	38.4736	-118.5044	7.5 miles ESE of HAWTHORNE-NV	Re-Alert	Comment	Delete
2007282_221779 - 5	2007-10-09 12:13:15	3.79	38.4801	-118.5002	7.5 miles ESE of HAWTHORNE-NV	Re-Alert	Comment	Delete
2007hzah - 1	2007-10-02 03:43:39	5.7	-4.5294	101.1811	SOUTHERN SUMATRA, INDONESIA	Re-Alert	Comment	Delete
2007271_220917 - 1	2007-09-28 00:23:21	2.94	35.7503	-115.8148	47.4 miles SW of LAS_VEGAS-NV	Re-Alert	Comment	Delete
2007htaj - 1	2007-09-26 04:43:16	5.9	-3.8822	-79.1707	NEAR THE COAST OF ECUADOR	Re-Alert	Comment	Delete
14325560 - 7	2007-09-25 22:38:23	3.9	33.7372	-117.4705	9.4 mi WNW of Lake Elsinore, CA	Re-Alert	Comment	Delete
2007268_220640 - 1	2007-09-25 06:06:17	3.02	39.0415	-118.555	32.2 miles SSE of FALLON-NV	Re-Alert	Comment	Delete
14325120 - 4	2007-09-23 08:13:41	3.5	32.693	-116.0592	4.8 mi SW of Ocotillo, CA	Re-Alert	Comment	Delete
2007263_220225 - 1	2007-09-20 08:49:29	3.67	40.5031	-115.7391	22.7 miles S of ELKO-NV	Re-Alert	Comment	Delete
2007256_219568 - 1	2007-09-13 10:43:30	3.36	40.7815	-116.9227	9.6 miles N of BATTLE_MOUNTAIN-NV	Re-Alert	Comment	Delete
2007256_219567 - 1	2007-09-13 10:30:49	3.37	40.6598	-116.7925	7.4 miles E of BATTLE_MOUNTAIN-NV	Re-Alert	Comment	Delete

- Processed Event: display a list of both actual and scenario ShakeMaps that have been processed by the ShakeCast and are present in the database. Available functions for each processed event are: Re-Alert, Comment, and Delete.
  - Re-Alert. The Re-Alert function triggers the ShakeCast notification process to re-send notifications to ShakeCast users whom were on the recipient list. The list of recipients and facilities is based on the time the event was processed.
  - Comment. The Comment function allows a ShakeCast administrator to attach additional information to a processed event, either via email notification and/or web posting. The target of email comment only applies to the list of recipients who received ShakeCast notifications for the specified event.

Comment Event via Email/Web Page

Here you can comment and email a message to either all of your users whom received ShakeCast notifications for the event. To do this, an email will be sent out to the administrative email address supplied, with a blind carbon copy sent to all recipients. If you are emailing a large group of people please be patient after submitting and do not stop the page halfway through. It is normal for a mass emailing to take a long time and you will be notified when the script has completed.

Comment Target : ☐ Email ☐ Web Page

Compose	
Recipients	Notified ShakeCast Users for this event
Subject	Re: ShakeCast Notification for Event 2007285_22
Message	

Submit

  - Delete. The Delete function removes all processed information for the specified event including event information, metrics, and notifications from the database. This function is typically used to remove unwanted events from the database and to reprocess selected ShakeCast events. This function does not remove ShakeMap products from the ShakeCast download directory.
- Test Event: display a list of processed ShakeMaps that are available for the purpose of local testing. To trigger a test event, click on the links in the Action column to simulate either a new or an updated event. Notifications generated from test events are sent to ShakeCast users whose notification profiles are configured to also receive test events. To add a processed ShakeCast event to the list for test event, click on the "Add new test event" button on the bottom of the page and select an event from a list of processed ShakeCast events. To remove a test event, delete the event directory from the ShakeCast test event directory from the operating system.

ShakeCast Test Event List

From this control panel you can add, edit, and remove test events.

Event ID	Mangitude	Latitude	Longitude	Location Description	Action	
SanGregorio_3_se_scte	7.44	36.805	-122.162	SGF_SGS+SGN	Version 1	Version N+1
200708152340_scte	8	-13.32	-76.51	Off Coast of Central Peru	Version 1	Version N+1
200610151714_scte	6	20.129	-155.983	Big Island Region, Hawaii	Version 1	Version N+1
200610151707_scte	6.7	19.8777	-155.935	Big Island Region, Hawaii	Version 1	Version N+1
200605262253_scte	6.3	-7.955	110.43	Yogyakarta, Indonesia	Version 1	Version N+1
200602222219_scte	7	-21.259	33.48	Mozambique	Version 1	Version N+1
200510080350_scte	7.6	34.465	73.584	Kashmir, Pakistan	Version 1	Version N+1
200503281609_scte	8.6	2.069	97.097	Nias, Sumatra	Version 1	Version N+1
200503200153_scte	6.6	33.802	130.209	Fukuoka, Japan	Version 1	Version N+1
200502220225_scte	6.4	30.691	56.794	Dahuiyeh, Iran	Version 1	Version N+1
200412260058_scte	9	3.287	95.972	Banda Aceh, Sumatra, Indonesia	Version 1	Version N+1
200411150906_scte	7.2	4.691	-77.509	Buenaventura, Colombia	Version 1	Version N+1
200410220856_scte	6.6	37.33	138.891	Niigata, Japan	Version	Version

- USGS ShakeMap: retrieves a list of both actual and scenario ShakeMaps on the USGS web site that are available for download and process. The two available options for a ShakeMap event are "Download Only" and "Inject." The "Download Only" function retrieves all available products for a ShakeMap and stores them in the ShakeCast data directory on the server system. The "Inject" function performs the same "Download Only" function and an additional ShakeCast process to for the ShakeMap event as for the real-time RSS system process. The major differences for the "Inject" function are that it is not restricted to the ShakeMap region directive of the RSS process and is also able to process scenario ShakeMaps. The ShakeCast administrator should use the "Inject" function with caution since the process treats actual USGS ShakeMaps as real events.

ShakeMap Event List on the USGS web site

From this control panel you can view, download, inject ShakeMaps on the USGS web site.

Actual Events : S. California | N. California | Pacific NW | Nevada | Utah | Hawaii | Global
Scenario Events : S. California | N. California | Pacific NW | Nevada | Utah | Alaska | Hawaii | Global

Event ID	Network	Action	
2007imal	global	Download Only	Inject
2007288_222252	nn	Download Only	Inject
2007ikbb	global	Download Only	Inject
93394	ak	Download Only	Inject
2007285_222046	nn	Download Only	Inject
2007ijad	global	Download Only	Inject
2007iibu	global	Download Only	Inject
2007iia5	global	Download Only	Inject
2007ihac	global	Download Only	Inject
2007iga7	global	Download Only	Inject
2007282_221806	nn	Download Only	Inject
2007282_221782	nn	Download Only	Inject
2007282_221841	nn	Download Only	Inject
2007282_221779	nn	Download Only	Inject
2007ifbt	global	Download Only	Inject
2007ifbi	global	Download Only	Inject
2007ida2	global	Download Only	Inject
2007icah	global	Download Only	Inject

Facility Administration

The facility administration section handles facility specific interaction with the ShakeCast system. This management section is divided into four categories: 1) Damage Level; 2) Facility Type; 3) Facility Management; and 4) Supplemental Attributes. Changes made in each category have different scope of influence. The "Damage Level" settings apply to all facilities in the ShakeCast database. Settings for both "Facility Type" and "Supplemental Attributes" are defined for specific structure types. Finally, the "Facility Management" allows management of facility specific information. It is worth noting that any changes made to "Damage Level" and "Facility Type" will not affect corresponding settings for existing facilities inside the database and only apply to new facilities. In addition to manual editing of facility settings, the administrator can use the "manage_facility.pl" tool to refresh settings of all facility via batch processing.

- Damage Level: display a list of available damage state descriptions for facilities. The ShakeCast system is pre-configured with a four damage level classification. The number of damage levels is flexible and the ShakeCast administrator can create additional damage states for custom needs. Although defined damage levels are available to all facilities for damage assessment, it is not necessary to define the range of ground intensity measures for all damage levels for a given facility. Undefined damage levels of a facility will simply not be used to measure damage state for the facility.

ShakeCast Damage Level Administration

From this control panel you can add, edit, and remove damage levels.

Damage Level	Name	Description	Severity Rank	Max Severity	Action
GREEN	Damage Unlikely or Slightly	Damage is not likely to the facility.	100		Edit Delete
YELLOW	Moderate Damage Possible	This facility has possibly suffered damage.	200		Edit Delete
ORANGE	Extensive Damage Possible	This facility has possibly suffered extensive damage.	300		Edit Delete
RED	Complete Damage Possible	This facility has probably suffered damage.	400	Yes	Edit Delete
		Add new damage level			

- Facility Type: display a list of available definitions of structure type for facilities. Each facility type includes a set of optional fields of default fragility settings. The ShakeCast system comes with default fragility settings for 128 choices of HAZUS model building type and code era (see document "HAZUS Damage Level" for detailed definition). The database also contains definitions of common geotechnical structures but includes no fragility settings. ShakeCast users can define custom structure types for their facilities. To define damage states for a given facility type, the ShakeCast administrator will need to provide the range of high and low values of the described damage level and the metric of ground intensity measure.

ShakeCast Facility Type Administration

From this control panel you can add, edit, and remove facility type specific parameters and fragilities.

Facility Type	Name	Description	Action
C1HH	C1H High Code	C1H High Code	Edit Delete
C1HM	C1H Moderate Code	C1H Moderate Code	Edit Delete
C1HL	C1H Low Code	C1H Low Code	Edit Delete
C1HP	C1H Pre Code	C1H Pre Code	Edit Delete
C1MH	C1M High Code	C1M High Code	Edit Delete
C1MM	C1M Moderate Code	C1M Moderate Code	Edit Delete
C1ML	C1M Low Code	C1M Low Code	Edit Delete
C1MP	C1M Pre Code	C1M Pre Code	Edit Delete
C1LH	C1L High Code	C1L High Code	Edit Delete
C1LM	C1L Moderate Code	C1L Moderate Code	Edit Delete
C1LL	C1L Low Code	C1L Low Code	Edit Delete
C1LP	C1L Pre Code	C1L Pre Code	Edit Delete
C2HH	C2H High Code	C2H High Code	Edit Delete
C2HM	C2H Moderate Code	C2H Moderate Code	Edit Delete
C2HL	C2H Low Code	C2H Low Code	Edit Delete
C2HP	C2H Pre Code	C2H Pre Code	Edit Delete
C2MH	C2M High Code	C2M High Code	Edit Delete
C2MM	C2M Moderate Code	C2M Moderate Code	Edit Delete
C2ML	C2M Low Code	C2M Low Code	Edit Delete
C2MP	C2M Pre Code	C2M Pre Code	Edit Delete
C2LH	C2L High Code	C2L High Code	Edit Delete
C2LM	C2L Moderate Code	C2L Moderate Code	Edit Delete
C2LL	C2L Low Code	C2L Low Code	Edit Delete

ShakeCast Facility Type Administration

From this control panel you can add, edit, and remove facility type specific parameters and fragilities.

Facility Type Information

Facility Type	C1HH
Name	C1H High Code
Description	C1H High Code

Submit

Damage Level	Low Limit	High Limit	Metric
Damage Unlikely or Slightly	0	25	Peak Ground Acceleration (%g)
Moderate Damage Possible	25	71	Peak Ground Acceleration (%g)
Extensive Damage Possible	71	155	Peak Ground Acceleration (%g)
Complete Damage Possible	155	99999	Peak Ground Acceleration (%g)

- Facility Management: display a list of user-defined facilities populated in the ShakeCast database. From this view the administrator can create new facilities and manage information of existing ones. Required fields for a user-defined facility include facility name, facility type, and location in latitude and longitude. Facility location can be either a point location or a rectangular area. Fragility settings for a facility are needed for damage estimate. Custom fragility settings for a facility, either in values and/or choices of metric, will override the default settings for the given facility type. For ShakeCast systems with large inventory of facilities, the administrator can use the system utility "manage_facility.pl" to populate new facilities and to update/remove existing ones.

ID	Type	Facility Name	Description	Latitude	Longitude	Action
9124	BRIDGE	W Cabrillo Storage Uc	11-SD-008-2.32-SD	32.7633 <-> 32.7633	-117.1633 <-> -117.1633	Edit Delete
6488	BRIDGE	101/134, 170 Separation	07-LA-101-11.75-LA	34.1533 <-> 34.1533	-118.3783 <-> -118.3783	Edit Delete
3187	BRIDGE	101/280 Ic - S101 (Upper), N101 To N280 (Lower)	04-SF-101-1.63-SF	37.735 <-> 37.735	-122.4067 <-> -122.4067	Edit Delete
6171	BRIDGE	104Th Street Uc	07-LA-110-14.72-LA	33.94 <-> 33.94	-118.2783 <-> -118.2783	Edit Delete
7498	BRIDGE	105-110 Hov Connector Oc	07-LA-105-R7.11-LA	33.9283 <-> 33.9283	-118.285 <-> -118.285	Edit Delete
3000	BRIDGE	106Th Avenue Uc	04-ALA-580-R35.71-OAK	37.7483 <-> 37.7483	-122.145 <-> -122.145	Edit Delete
6172	BRIDGE	108Th Street Uc	07-LA-110-14.47-LA	33.9367 <-> 33.9367	-118.2783 <-> -118.2783	Edit Delete
4721	BRIDGE	10Th Avenue Oc	06-KIN-198-R18.96-HAN	36.325 <-> 36.325	-119.6367 <-> -119.6367	Edit Delete
3555	BRIDGE	10Th Street Oc	04-SCL-101-38.09-SJS	37.3633 <-> 37.3633	-121.8967 <-> -121.8967	Edit Delete
3757	BRIDGE	10Th Street Separation (152/101)	04-SCL-152-R9.91-GIL	37.0028 <-> 37.0028	-121.5569 <-> -121.5569	Edit Delete
1991	BRIDGE	10Th Street Uc	03-SAC-050-L.96-SAC	38.565 <-> 38.565	-121.4983 <-> -121.4983	Edit Delete
1992	BRIDGE	10Th Street Uc	03-SAC-050-L.96-SAC	38.565 <-> 38.565	-121.4983 <-> -121.4983	Edit Delete

ShakeCast Facility Administration

From this control panel you can add, edit, and remove facilities. Predefined facility fragility setting values include 15% amplitude adjustment from mean to peak values.

| | Lookup Facility |

Edit Facility Information

Facility Name	Abbeville, LA (pop. 11}*
Short Name	
Facility Type	City ▾ *
Facility Description	
Latitude	29.967 * <-> 29.967
Longitude	-92.133 * <-> -92.133

Damage Level	Low Limit	High Limit	Metric
Damage Unlikely or Slightly	1 *	5 *	Instrumental Intensity ▾ *
Moderate Damage Possible	5 *	7 *	Instrumental Intensity ▾ *
Extensive Damage Possible	*	*	Instrumental Intensity ▾ *
Complete Damage Possible	7 *	999999 *	Instrumental Intensity ▾ *

Submit   Delete

Facility Attribute

| ADMIN_REGION | |

- Supplemental Attributes: display a list of defined attributes associated with structure types. Supplemental attribute is a free-form field and multiple fields are permitted. It is designed to store specific information for facility types that are not commonly shared among facilities.

Profile Administration

A ShakeCast profile can be viewed as a pseudo user who represents a group of users with shared notification requests but different delivery methods. ShakeCast notification profiles are optional for setting up notification for systems with relatively small facility inventory or with a number of users. For larger system, notification profiles provide an efficient method to limit size growth of the database and to maintain performance of notification processing.

The profile administration section handles management of profiles with respect to both facilities and notification requests. This management section is divided into two categories: 1) Management of profile geometry polygons for facility association; and 2) Notification request for profile. Same as for facility management, there is command line counterpart of the web interface, "manage_profile.pl." For system with large inventory, the administrator can use the "manage_profile.pl" tool to refresh settings of all profiles via batch processing.

ShakeCast Profile Administration

From this control panel you can add, edit, and remove profile specific parameters and attributes.

ID	Profile Name	Description	Action	
17	CUS	Contiguous US	Edit	Delete
18	CI	Southern California	Edit	Delete
19	NC	Northern California	Edit	Delete
20	PN	Pacific Northwest	Edit	Delete
21	AK	Alaska Region	Edit	Delete
22	UT	Utah Region	Edit	Delete
23	HV	Hawaii Region	Edit	Delete
24	NN	Nevada Region	Edit	Delete
		Add new profile		

- Management: display a list of defined profiles that a user can subscribe for notification requests. Each profile consists of a geometric polygon outlining the region of interest and a set of notification requests for the enclosed facilities. The administrator defines the polygon via the interactive map and with the additional options for selecting rectangular and circular regions. Upon submitting the form, a list of facilities enclosed by the geometric boundaries will be assigned to the profile. The list of facilities for a profile is not restricted to the facilities enclosed inside the polygon and can be edited later.

- Notification Request: display a list of available notification requests configured for each profile. From this view the administrator selects a profile to edit or remove its notifications.

Profile Notification Request Administration

From this control panel you can add, edit, and remove profile notification settings

ID	Profile Name	Description	Notification Settings	Action
17	CUS	Contiguous US	6	Edit Delete
18	CI	Southern California	6	Edit Delete
19	NC	Northern California	6	Edit Delete
20	PN	Pacific Northwest	0	Edit Delete
21	AK	Alaska Region	0	Edit Delete
22	UT	Utah Region	0	Edit Delete
23	HV	Hawaii Region	0	Edit Delete
24	NN	Nevada Region	6	Edit Delete
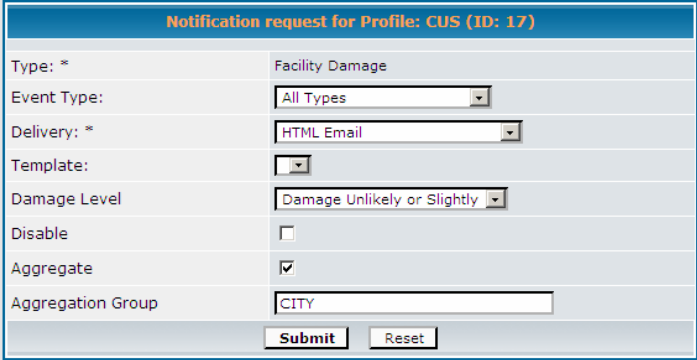
When creating a notification request, there are six different notification types to choose from. The notification types include "New Event", "Cancel Event", "Update Event", "New Product", "Facility Shaken", and "Facility Damage." It is permitted to define more than one notification requests of the same type for a profile. Multiple notification requests can be aggregated into groups as a combined message during the dissemination of notifications based on users' requests.

Profile Notification Request Administration

From this control panel you can add, edit, and remove profile notification settings

Notification request for Profile: CUS (ID: 17)

ID	Type	Event Type	Delivery	Template	Limit Value	Damage Level	Product	Metric	Disable	Aggregate	Aggregation Group	Facility	Action
40	Facility Damage	All Types	HTML Email			Damage Unlikely or Slightly				Yes	CITY	10018	Edit Delete
42	Facility Damage	All Types	HTML Email			Complete Damage Possible				Yes	CITY	10018	Edit Delete
41	Facility Damage	All Types	HTML Email			Moderate Damage Possible				Yes	CITY	10018	Edit Delete
37	New Event	All Types	HTML Email									10018	Edit Delete
38	New Product	All Types	HTML Email				GRID_XML					10018	Edit Delete
39	Facility Shaken	All Types	HTML Email		1			Instrumental Intensity		Yes		10018	Edit Delete

Add a Notification Request: [Select a Notification Request ▾] [Add]

All times are GMT

Inside the notification request view, the available functions are Add, Edit, Delete, and Facility selection. To add a new request, use the selectable menu on the lower left corner of the form to create and configure the request. The Delete function removes the selected notification request from the database.

All notification request types require information of notification type, event type, and delivery method. For "New Product" type, an additional field of product type is needed. For "Facility Damage" type, the additional required field is damage level. For "Facility Shaken" type, the administrator needs to specify both the

metric and the limit value of shaking threshold.

Notification request for Profile: CUS (ID: 17)	
Type: *	Facility Damage
Event Type:	All Types
Delivery: *	HTML Email
Template:	
Damage Level	Damage Unlikely or Slightly
Disable	☐
Aggregate	☑
Aggregation Group	CITY
	Submit Reset

To fine tune the list of facilities for a profile, the administrator click on the facility link inside the notification request view page. The facility selection view is a set of paged tables with included facilities marked with check marks. The administrator can switch between the subscribed list and the full list of facilities to add and remove facilities from the list. The facility inventory is updated for the profile after the administrator submits the changes.

n add, edit, and remove profile notification settings

Facilities of Notification Request for Profile: CUS (17)					
		Subscribed List	Full List		
ID	Type	Facility Name	Latitude	Longitude	Select ☑
1	BRIDGE	Minot Creek	41.5536	-124.0547	☑
2	BRIDGE	Hunter Creek	41.5581	-124.0589	☑
3	BRIDGE	High Prairie Creek	41.5683	-124.0689	☑
4	BRIDGE	Wilson Creek	41.6044	-124.1006	☑
5	BRIDGE	Smith River (Hiouchi)	41.8064	-124.0822	☑
6	BRIDGE	Myrtle Creek	41.8017	-124.0556	☑
7	BRIDGE	Hardscrabble Creek	41.8392	-124.0261	☑
8	BRIDGE	Smith River	41.8425	-124.0117	☑
9	BRIDGE	Middle Fork Smith River	41.8578	-123.8853	☑
10	BRIDGE	Patrick Creek	41.8744	-123.8436	☑
11	BRIDGE	Middle Fork Smith River	41.88	-123.8272	☑
12	BRIDGE	Middle Fork Smith River	41.8831	-123.8186	☑
13	BRIDGE	Middle Fork Smith River	41.8608	-123.8719	☑
14	BRIDGE	Smith River	41.8797	-124.1369	☑
15	BRIDGE	Rowdy Creek	41.9283	-124.1417	☑
16	BRIDGE	Gilbert Creek	41.9819	-124.2031	☑
17	BRIDGE	Panther Creek	41.5561	-124.0567	☑
18	BRIDGE	Route 101/169 Separation	41.5228	-124.0342	☑
19	BRIDGE	Hoppow Creek (W169-N101)	41.5231	-124.0333	☑
20	BRIDGE	Hoppow Creek (Off-Ramp)	41.5228	-124.035	☑
21	BRIDGE	Klamath River	41.5181	-124.0314	☑

User Administration

The user administration section handles tasks of user specific interactions with the ShakeCast system. Depending on the system configuration, creation of a new user

account and notification requests can be initiated by either the end-user or the administrator. Upon user's request for a new account, the administrator can usually approve or deny the request by responding to the email message sent by the ShakeCast system. This management view allows the administrator to review settings of all user accounts and can overwrite any existing settings. The section is divided into three categories: 1) Management; 2) Notification Request; and 3) Replication. Batch processing for a large number of user accounts and settings of notification requests is available via the ShakeCast utility "manage_user.pl."

- Management: display a list of users stored inside the ShakeCast database. In addition to the basic user information the table also shows the user privilege and user status. A "Suspended" user status indicates that the user account exists in the database but neither user log-on nor receiving notifications are permitted. To remove a user permanently from the database, the administrator should use the "Delete" function from within this view.   There are three available functions for the "Management" view: Add, Edit, and Delete. The "Delete" function removes all information including user data, notification requests, and previous notifications for the selected user from the ShakeCast. Both the "Add" and "Edit" functions share the same interface. The exception is that for "Add" the administrator needs to provide a unique user name for the new user account.

User Administration

Here you can change your users' information and certain options.

Select a User

[   ] [Look up user]

Username	Full Name	Email Address	Job Title	Organization	User Level	User Status	Action
scadmin					Administrator	Active	Edit Delete
SteveSahs	Steve Sahs	steve_sahs@dot.ca.gov			User	Active	Edit Delete
MarkYashinski	Mark Yashinski	mark_yashinsky@dot.ca.gov			User	Active	Edit Delete
MikeKeever	Mike Keever	mike_keever@dot.ca.gov			User	Active	Edit Delete
LorenTurner	Loren Turner	loren_turner@dot.ca.gov			Administrator	Active	Edit Delete
BobTanaka	Bob Tanaka	bob_tanaka@dot.ca.gov			User	Active	Edit Delete
	John						

The user account form consists of four sections regarding information for user log-in, user profile, delivery addresses, and special fields. The user can update information for the first three sections from the user accessible account management page. The administrator-only fields allow both suspension and removal of any user account, including the administrator. The administrator can also use this form to modify user privilege. It is advisory to limit the number of users with administrator's privilege.

User Administration

Here you can change your users' information and certain options.

Registration Information

Items marked with a * are required unless stated otherwise.

Username: *	LorenTurner
E-mail address: *	loren_turner@dot.ca.gov
New password: * You only need to supply a password if you want to change it	
Confirm password: * You only need to confirm your password if you changed it above	

Contact Information

Full Name	Loren Turner
Occupation	
Organization	
Location	

Delivery Method Information

HTML Email	loren_turner@dot.ca.gov
Text Email	
Pager	loren_turner@dot.ca.gov

Special admin-only fields

These fields are not able to be modified by the users. Here you can set their status and other options that are not given to users.

User is active	⦿ Yes ○ No
User Level	Administrator ▾
Delete this user?	☐ Click here to delete this user; this cannot be undone.

Submit   Reset

- Notification Request: works the same as the notification request view for profile management. Changes of notification request settings only apply to the selected user.

- Replication: display a form with two drop-down selectable lists for both the source and destination for the replication process. The ShakeCast replication function allows the administrator to duplicate notification requests of a selected profile or user to a group of users. For better performance for system notifications immediately after earthquakes, the administrator can create a profile for users who share common notification requests. By assigning the user group to a single profile it effectively reduces the processing time and the table size of the notification queue. User replication is suitable to produce a template of notification requests for particular users for further customization.

Miscellaneous Administration

- Web access to ShakeCast system version 1: In addition to the standard portal access, the ShakeCast version 2 system also retains the web directories from the previous version for the purpose of both user and server communications. Access to these pages is restricted and is authenticated through the Apache web server. The administrator has to edit the files "httpd-sc.conf" and "sc-servers" files to configure user access and password changes. To disable the version web access, edit the ShakeCast web configuration file "httpd-sc.conf" under the "conf" directory by commenting out the "scripts/s" and the "scripts/c" sections.
- PMA access: The ShakeCast system has pre-configured an optional installation of PHPMyAdmin into the "/pma" directory. The application allows the administrator to interact with the database via the web interface. To access the interface, the administrator is required to provide the same username and password as for the version 1 web access and also the username and password to the ShakeCast database. To disable the PMA access, edit the ShakeCast web configuration file "httpd-sc.conf" under the "conf" directory by commenting out the "pma" section.
- Database configuration: Information regarding access to the ShakeCast database and authentication is stored inside the "sc.conf" configuration file under the "conf" directory. The administrator will also need to update the "sc.conf" file every time when access information to the database is changed.
- Default center location: The default center point for the ShakeCast mapping interface is stored in the file "default-sc.js" under the "docs" directory and is currently set in California. The administrator can edit the content of the file to change the default center location.